



WOMEN'S BUREAU
U.S. DEPARTMENT OF LABOR

Tools For Building An Equitable Infrastructure Workforce

GENDER EQUITY STRATEGIES AS A MODEL

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Elyse Shaw



Toolkit Overview

The unprecedented levels of federal investment in infrastructure create a unique opportunity to design and implement policies and programs that will ensure equity and inclusion in good jobs that pay family-sustaining wages and meet the demand for workers on a wide range of infrastructure projects. This module provides guidance on strategies and best practices for recruiting and retaining women in construction, manufacturing, and clean energy jobs. This module can and should be used by a wide range of stakeholders. These strategies should be viewed as a menu of options and entry points that can and should be used to either initiate new projects and programs and fill the gaps for existing work, depending on their community and workforce needs. The toolkit includes strategies, resources, and examples of the following:

Make the Intentional Choice to Build a Diverse Workforce

- Build inclusive local/regional partnerships.
- Intentionally center diversity, equity, inclusion, and accessibility (DEIA).
- Make data-driven decisions.
- Creating an intentional regional equity and diversity plan.
- Creating the demand for a diverse workforce.

Targeted Recruitment and Addressing Barriers to Entry

- Using inclusive language and images.
- Target locations frequented by women.
- Engage and empower women to help recruit other women.
- Build strong partnerships with women-focused pre-apprenticeship programs and tradeswomen organizations.
- Provide comprehensive wraparound supportive services.
- Maintain flexibility in the recruiting process.

Retaining a Diverse Workforce

- Committing to regular and consistent monitoring and reporting on progress.
- Provide equitable training and work opportunities.
- Implement policies and programs to change workplace culture, prevent and address gender-based violence and harassment, and address health and safety concerns.
- Continued investment in wraparound supportive services and benefits.

Resources

Research



Introduction

The unprecedented levels of federal investment in infrastructure – from the Bipartisan Infrastructure Law (BIL), the CHIPS and Science Act, and the Inflation Reduction Act – create a unique opportunity to design and implement policies and programs that will ensure equity and inclusion in good jobs that pay family-sustaining wages. Building a diverse and equitable workforce requires intentional and thoughtful strategies for recruiting and retaining underserved and underrepresented populations.¹ Successfully implementing strategies requires clear guidance on best practices as well as dedicated funding and technical assistance.

Women² are vastly underrepresented³ in critical infrastructure fields such as manufacturing, construction and clean energy. Research also shows that there are pay disparities for women in these fields, and for some, particularly women from underserved communities, these pay disparities can be significant. For instance, in the skilled trades, women earn less than men⁴ and women with disabilities make significantly less than men with disabilities;⁵ and in manufacturing, Black women and Latinas are “particularly likely to work in lower-paid jobs or sectors in the industry.”⁶

Additionally, the construction, manufacturing, and clean energy industries need to rapidly hire a skilled workforce across the United States.⁷ As federally funded projects continue to launch, there is an opportunity to meet the demand for workers on federally and privately funded projects. Women are severely underrepresented and underserved in the construction, manufacturing, and clean energy sectors. Despite being almost [50% of the workforce, women make up only 10.9% of the construction workforce – with only 4.2% of those working in skilled construction trades occupations – and 29.3% of the manufacturing workforce](#). Moreover, women in construction and manufacturing are overrepresented in lower-wage occupations.⁸ In order to meet the workforce demands, workforce development plans must center equity for all women.

Advancing equity in these jobs requires partnerships, intentional investments in workforce development, and a commitment to diversity, equity, inclusion, and accessibility (DEIA) at all levels. This module can and should be used by a wide range of stakeholders, including local, regional, and state governments, project owners and those who are recipients of federal infrastructure funds, employers, unions, workforce development entities, philanthropy, non-profit and community-based organizations, and any other actors working to build equitable pathways to good jobs for women. The strategies found in this module apply to various stakeholders but work best when used by a coalition of participants who are working together from different sectors to advance equitable workforce development in their community. Additionally, stakeholders should view these strategies as a menu of options and entry points that can and should be used to either initiate new projects and programs and fill the gaps for existing work, depending on their community and workforce needs.

When advancing equity, consider the following:⁹



Make the Intentional Choice to Build a Diverse Workforce

Diversity benefits both employers and women workers. Research has shown that¹⁰ a diverse workforce attracts top talent, increases retention, improves productivity and profits, and enhances problem-solving abilities. Creating pipelines for women into male-dominated jobs is one part of reducing occupational segregation¹¹ and narrowing the gender wage gap. Attracting diverse workers – women and other underrepresented groups – can help employers meet critical workforce demands in construction, manufacturing, and clean energy.

Strategies to support building a diverse workforce include:

- **Building inclusive local/regional partnerships.** These partnerships should include community-based organizations – especially those with an equity focus – unions, employers, workforce development entities, pre-apprenticeship/apprenticeship readiness programs, community colleges, and local government. Any public-private collaborations should actively engage and include the nationwide network of tradeswomen organizations and women-focused pre-apprenticeship programs. These partnerships should also include a formalized process for setting diversity goals and include establishing regular meetings and engagement among a diverse group of stakeholders, especially those from and who serve underrepresented populations, and ensure that all have the opportunity to voice and communicate their needs.

For example, [Labor-Management Partnerships \(LMPs\)](#) – a strategic partnership between an employer and union that represents workers' voices and enables both parties to work toward improved workplaces



and worker experience – is central to developing equitable demand-driven workforce training connected to good jobs, allowing employers, labor, workers, workforce development entities, and other partners to work together on shared priorities through joint decision-making. LMPs foster an approach of designing training tailored to prepare workers for the actual jobs that employers need to fill. This benefits workers who are hired and placed into good jobs and employers who are more competitive with a skilled workforce.

Examples/Resources:

- The Department of Labor's Office of Labor-Management Standards [Labor-Management Partnership Program](#) highlights examples of, and demonstrates the importance of having employers and workers joining together and working collaboratively.
- The Department of Labor's Office of Federal Contract Compliance Programs' (OFCCP) [Mega Construction Project \(Megaproject\) Program](#) includes an intensive “front-end” approach from the earliest stages of a designated project that regularly engages a wide range of stakeholders to regularly participate in Equal Employment Opportunity (EEO) Committees. The EEO Committees promote a diverse pool of qualified workers and remove barriers to equal employment opportunity for applicants and workers from underrepresented communities.
- **Intentionally center diversity, equity, inclusion, and accessibility (DEIA).** To realize the vision of equitable economic gains and prosperity for all, equity must be intentionally addressed and proactively discussed at every step of any workforce development plan and at every step of the process in the deployment and usage of federal funding sources. For example, successful LMPs not only focus on reacting to changes in the labor market, but employers, unions, and employees commit to a shared vision of how the LMP can use its role to reshape the labor market to be more equitable for women and people of color. Additionally, commitments to DEIA must include strategies to proactively address bias – both conscious and unconscious – discrimination, and gender-based violence and harassment.¹²

Examples/Resources:

- Oregon's Metro regional government [Career Construction Pathways](#) program – which aims to bring more women and BIPOC (Black, Indigenous, People of Color) individuals into the construction industry – began their efforts by building a diverse partnership that included 16 public agencies, workforce development partners, pre-apprenticeship programs, and minority contractors' associations, among others. This coalition created the [Construction Careers Pathway Regional Framework](#) and [Regional Workforce Equity Agreement](#).
- The city of [Rochester, MN](#) was awarded a [Bloomberg Global Mayor's Challenge](#) and \$1 million in 2021 to support the city's work to remove barriers that prevent women of color from construction-related, well-paying jobs. The city financially compensated women of color to ensure they would be able to participate and work in partnership with key stakeholders to co-design and shape new programs, policies, and services to create career pathways for women of color.
- California's [High Road Training Partnerships](#) (H RTP) are industry-based and worker-focused training partnerships that build skills for California's “high road” employers – firms that can generate family-supporting jobs where workers have agency and voice. Equity is a central tenet of California's H RTP model, which focuses on ensuring diverse voices are part of these partnerships.



- **Make data-driven decisions.** Efforts should begin with an analysis of the employment landscape in each area, which can then be used to build a shared understanding of opportunities and challenges and inform a regional diversity plan. In order to address barriers and fill critical workforce gaps, stakeholders should identify existing data and analyses and utilize these resources in order to make informed data-driven decisions. Stakeholders should also identify any gaps in the analysis and ensure that studies include disaggregated data, including gender, race/ethnicity, disability status, etc. Additionally, any employment landscape must include analysis of occupational segregation to help better understand which industries have a large gender gap in employment.

Examples:

- [Portland Metro Region Construction Workforce Market Study \(Oregon\)](#)
- [Building a Better Future for Women in New Orleans Post COVID-19: Opportunities for Women in Skilled Trade and Technical Jobs \(Louisiana\)](#)
- [Springfield Construction Disparity Study \(Massachusetts\)](#)
- City of Worcester Construction [Workforce Disparity Study](#) (Massachusetts)

- **Creating an intentional regional equity and diversity plan.** A regional or localized diversity plan is needed to set consistent and clear expectations, goals, and coordinate efforts across multiple construction projects or manufacturing employers to ensure improved regional- or local-level gender diversity in the construction, manufacturing, and clean energy workforce. These plans should also address diversity across the workforce development pipeline, from pre-apprenticeship/apprenticeship readiness programs to apprenticeship and on-the-job-training, to promotion and career advancement. Without a regional and coordinated plan, project-level gains or improvements by one employer, may not translate into broader diversity gains for the region. For example, contractors and sub-contractors often have a “core” crew that moves from project to project, and these crews often do not include women.¹³ This means that women are often the last to be hired and the first to be let go once their work on a project is complete. Effective regional plans help ensure that women are not only recruited but retained in these male-dominated fields. This intentional equity and diversity plan should be data-informed and data-driven. However, regions should leverage existing data and reports and tap into local efforts that are already underway by tradeswomen and equity organizations.

Resources:

- The Department of Labor's Women's Bureau (WB): [Women in Apprenticeship and Non-traditional Occupations \(WANTO\)](#) grant program provides a list of current and past WANTO grantees and their WANTO-funded projects.
- National Taskforce on Tradeswomen's Issues: Provides a list of tradeswomen organizations and pre-apprenticeship training programs, research and best practices, including the [Framework For Promoting Equity And Inclusion For Women And People Of Color Working In The Trades On Publicly Funded Infrastructure Projects](#)
- [National Center for Women's Equity in Apprenticeship and Employment:](#) Provides resources on policies, gender equity partners, training, and a [Best Practices](#) resource list.



- [Women Building Infrastructure Initiative](#) includes 11 place-based teams that are working to build equity for women on federally funded infrastructure projects. As a result of this work, the Vermont team released a state equity plan: [Equity in Infrastructure: Creating opportunities for women in Vermont's skilled trades workforce](#).
- [National Urban League](#) works to provide economic empowerment, educational opportunities and the guarantee of civil rights for the underserved in America.
- [Policy Group on Tradeswomen Issues](#): Provides best practices including a checklist for creating diversity on jobsites: [Finishing the Job: Best Practices for a Diverse Workforce in the Construction Industry](#)
- **Creating the demand for a diverse workforce.** Creating employer demand for hiring diverse workers is a key element of increasing equity. Successful programs and projects in the construction industry use [Project Labor Agreements](#) (PLAs) and/or Community Workforce Agreements to set firm equity objectives and goals with specific targets for the share of women and other underrepresented groups working on each project. For the manufacturing workforce, creating demand for a diverse workforce includes setting clear goals and targets for hiring, retaining, and promoting women at each manufacturing facility and tackling bias in the hiring and promotion processes.¹⁴

Examples:

- OFCCP's [Megaproject Program](#) fosters equal opportunity in the construction trades workforce of federal contractors and subcontractors on large federal construction projects. From the earliest stages of a designated project, OFCCP engages a wide range of stakeholders to remove hiring barriers and promote consideration of a diverse pool of qualified workers.
- In Boston, a PLA was signed for a development at Suffolk Downs which permitted direct employment of graduates from the [Building Pathways](#) pre-apprenticeship program and created a committee to track and monitor the progress of retaining and supporting women and workers of color on the jobsite. This included funded efforts to ensure access to affordable childcare for project workers.



Targeted Recruitment and Addressing Barriers to Entry

Women are less likely to enter jobs in construction, manufacturing and clean energy because they are not aware of job opportunities in those sectors and may not understand how to access these careers. Women have a reduced likelihood of working with tools growing up, receiving encouragement to pursue math or relevant career and technical training classes in school, and being told about opportunities in the trades by family, friends, or career counselors. Women also face bias and discrimination when attempting to access male-dominated jobs, which is a significant barrier to entry.

The increased financial burdens that come from starting a job training program is another major barrier to entry for many women. Women need support to enter male-dominated jobs, including resources that help them manage things like caregiving responsibilities, access to tools and equipment for work, or transportation to get to work. Therefore, conducting targeted outreach and recruitment to inform women about available jobs, what they entail, and that women are not only welcome in them but can also access financial supports, is a major step to getting more women into male-dominated occupations. Additionally, addressing bias and discrimination in hiring and supporting women to enter these jobs is essential to overcoming barriers to entry for women.

Strategies to target recruitment of women include:

- **Use inclusive language¹⁵ and images.** Inclusive language and images in advertisements may seem insignificant but can significantly impact the diversity of applicants in the recruitment process. Most people make career decisions based on what they know about those careers and who they see working in those positions.¹⁶ Images are a powerful recruitment tool and can help break down stereotypes about who can and should be applying to construction, manufacturing, and clean energy jobs. All recruitment



materials should include language such as “women encouraged to apply” and should use images/photos of women from a diverse range of backgrounds for posters and advertisements, including images of multiply marginalized women such as black women or women with disabilities.

Example:

- The New York State Department of Labor has conducted a media campaign to increase diversity in the workforce, including specifically increasing gender diversity in non-traditional occupations: [Who Runs the World? Girls; This is Why: Nancy and Heraclio, Highway Maintenance Workers at NYS DOT; This is Why: Wendy, Apprentice; This is Why: Asa, Lineworker; This is Why: Advanced Manufacturing Assembly Lead; This is Why: Truck Driver](#)
- **Target locations frequented by women.** Additional efforts are needed to specifically target women – like placing accessible advertisements in childcare and community centers, gyms, college women’s sports teams facilities, places where women work long or unpredictable hours (bartenders, food servers and home health aides), on public transportation. By partnering with public housing/local Housing and Urban Development (HUD) agencies and engaging trusted intermediaries with ties to underserved communities, underrepresented women may be reached.

Example:

- Building Pathways in Massachusetts has focused [their recruitment efforts](#) on conducting outreach where women are, including grocery stores, court houses, and high school career fairs. Building Pathways partners with the Boston Housing Authority (BHA) whose staff engage residents by calling them to inform them about the pre-apprenticeship program in addition to hanging flyers in buildings and community centers.
- **Engage and empower women to help recruit other women.** Word of mouth recommendations are often the best way to recruit other women. Hearing from a trusted friend or family member or those with experience about career opportunities and the ability to earn a living wage while you get trained often works better than advertisements and recruitment materials. Additionally, forums where women who work in the construction, manufacturing and clean energy industries can talk to girls, young women, and women in their community who may be interested in a career in the construction trades is an invaluable recruitment tool.

Examples:

- [Massachusetts Girls in Trades](#) holds two annual Conference and Career Fairs (one in Eastern and one in Western, Massachusetts) that bring together young women from high schools, tradeswomen, union construction trade organizations, government agencies, and contractors to introduce young women to careers in the construction trades.
- Union-supported women’s committees are another important recruitment [tool](#). They spend a substantial amount of time on recruitment efforts, including attending career fairs, participating in training events, and spending time in communities showing other women that an apprenticeship in the trades is a route to a rewarding, well-paid career.



- **Build strong partnerships with women-focused pre-apprenticeship programs and tradeswomen organizations.** These programs and organizations have long-standing histories of recruiting and retaining women in the construction trades and manufacturing and have connections with women across the U.S. These networks are invaluable resources when it comes to hiring women for projects and should be used as an avenue for locating women who are trained and looking for work. Women-focused pre-apprentice programs also have built connections with their regional workforce, workforce development programs, and unions to ensure that women have the training needed and a pipeline to construction, manufacturing and clean energy careers.

Resources:

- WB: [WANTO grant program](#)
- [National Taskforce on Tradeswomen's Issues](#)
- [National Center for Women's Equity in Apprenticeship and Employment](#)
- [Women Building Infrastructure Initiative](#)

- **Provide comprehensive wraparound supportive services.** The increased financial burdens that come from starting a pre-apprenticeship, apprenticeship or other job training program are a major barrier to entry for many women. Comprehensive wraparound supportive services are essential to lowering the barriers to entry for women, especially women who are low-wage earners, experiencing poverty, domestic violence survivors, human trafficking survivors, immigrants and refugees.¹⁷ These supports include (but are not limited to): funds for transportation, housing, union initiation fees, work clothing, tools/equipment, emergency cash assistance, and internet access. One especially critical support is assistance with and funds for securing childcare, especially during nonstandard hours. Recent [analysis shows](#) that childcare prices vary substantially across the country, but prices are untenable for families even in lower-priced areas, ranging from 8% to 19.3% of median family income *per child*.

Supportive services also include non-financial assistance such as mentoring, career counseling, peer related support groups, and assistance with getting drivers' licenses and identification cards. [Research findings indicate](#) that supportive services have the greatest impact when individuals receive both financial and non-financial supports.

Resources:

- The WB's [National Database on Childcare Prices](#) is the most comprehensive federal source of childcare prices at the county level.
- The WB's [WANTO grantees](#) are allowed to use up to 25% of grant funds on wraparound supportive services for individuals to participate in grant-funded activities.
- Institute for Women's Policy Research reports: [Getting to the Finish Line: The Availability and Impact of Supportive Services in the Workforce Development System](#); [Supportive Services in Workforce Development Programs: Administrator Perspectives on Availability and Unmet Needs](#); and [Supports that Matter in Workforce Development Programs: A National Client Survey on Access to Services](#)



Examples:

- [Care that Works](#), a coalition of grassroots community groups and labor unions in Massachusetts, launched a nonstandard-hour childcare pilot [program](#) in Boston that matches working parents pursuing careers in construction and hospitality with childcare providers who open as early as 5 a.m.
- [Moore Community House](#) (Biloxi, Mississippi) offers funding for childcare as part of its Women in Construction (WiC) program, a pre-apprenticeship job training program designed to prepare women for careers in apprenticeship and non-traditional career pathways. As part of the program, Moore Community House offers childcare assistance for eligible participants in two ways: they either provide childcare directly through their Early Head Start program or they help connect WiC participants with a childcare provider in the community and pay directly for this care using funding from private and public grant funds.
- Wisconsin Department of Transportation operates the [Highway Construction Skills Training \(HCST\) program](#), a six week intensive training program that prepares workers for careers in the road construction industry and provides wraparound supportive services for those in the program.
- Philadelphia WORKS runs the [Women in Nontraditional Careers \(WiNC\)](#) program, which helps connect women to careers in construction, manufacturing, and transit careers and supportive services.
- California's [Equal Representation in Construction Apprenticeship \(ERiCA\) Grant](#) program creates career pathways for women, non-binary, and underserved populations into the building and construction sectors by providing funds (\$25 million) for childcare. Funds can be used for childcare stipends, to cover the cost of childcare coordination, or for participants' in-house childcare needs.
- [TradesFutures](#) launched two childcare pilot programs in New York City and Milwaukee, Wisconsin. Both pilots will support local childcare coalitions comprised of labor unions and non-profits and will connect women with quality childcare. The Milwaukee pilot offers childcare vouchers, while the New York City program provides funding for tradeswomen's childcare vouchers in partnership with [Nontraditional Employment for Women \(NEW\)](#).
- [Sound Transit](#) partners with local organizations that run construction job training programs, including pre-apprenticeship programs that provide construction training and education as well as supportive services such as transportation, childcare, and more.
- Oregon Department of [Transportation](#) (ODOT) and the [Oregon Bureau of Labor & Industries](#) (BOLI) have partnered for the Highway Construction Workforce Development Program, which provides both financial and non-financial supportive services for apprentices and pre-apprentices, including [a number of supports](#) to assist those in the construction trades with access to childcare.
- **Maintain flexibility in the recruiting process.** Ensuring women have equal access to careers in the construction trades, manufacturing and clean energy workforce requires a flexible recruitment and hiring process. For example, rather than only having one in-person informational or recruitment event every week or month, create materials that can be picked up or distributed or accessed virtually and create times when applications can be picked up or submitted during early morning, lunch and evening or weekend hours or use an online application process that is open for a clearly defined period. Additionally, use standardized skills-based tests rather than in person interviews to determine competencies for any qualifications needed for the position. Finally, for Registered Apprenticeship Programs (RAPs) and on-the-job training programs, ensure there is a fair and equitable process for selecting applicants for admission, such as a lottery for all qualified applications.



Retaining a Diverse Workforce

Equally important to recruiting women is retaining them in male-dominated industries. For example, while efforts to recruit more women into the construction trades have made an impact – with the number of women working in construction [reaching the highest level ever](#) – women still only make up 4.2% of the construction trades workforce. Additional efforts need to be made to not only recruit women into these non-traditional occupations, but also retain those who are recruited. Recent research on tradeswomen and women in manufacturing has found that close to half of respondents (45% of tradeswomen, and 47% of women in manufacturing) have seriously considered leaving the construction or manufacturing industries.¹⁸ Additionally, more than 1 in 5 tradeswomen report that they are rarely or never treated equally with men on work assignments, and almost 1 in 5 report a lack of equal treatment when it comes to on-the-job training.¹⁹ Any gains made through targeted recruitment and addressing barriers to entry will not be sustained unless paired with intentional retention strategies, including ensuring that workers have access to [good jobs](#) – which include the ability to join a union, organize, and advocate for collective bargaining rights – with the benefits and supports needed to provide economic stability for workers and their families.

Retention strategies include:

- **Committing to regular and consistent monitoring and reporting on progress.**

Ensuring continued opportunities for women and opportunities for career advancement, including creating demand for journey-level women workers, is a key part of ensuring the recruitment efforts have a lasting impact on diversity in the construction, manufacturing and clean energy industries. Part of creating continual demand for a diverse workforce is establishing monitoring bodies – sometimes called [Access and Opportunity Committees](#) or Equal Employment Opportunity Tables – that meet regularly, review and discuss data on diversity efforts, and identify and address potential barriers to meeting diversity goals. These forums also provide opportunities to develop strategies for addressing barriers and ensuring more equitable outcomes. Ensuring continued opportunities for women and opportunities for career



advancement, including creating demand for journey-level women workers, are crucial to ensuring that recruitment efforts have a lasting impact on diversity in the construction, manufacturing and clean energy industries. Regular and consistent monitoring and reporting on progress should be data-driven and ensure that there are equal opportunities and pathways for women.

Examples:

- The Massachusetts [Gaming Commission](#) implemented Access and Opportunity Committees on three casino projects to maximize opportunities for women, people of color, and veterans. There was regular reporting on diversity metrics and goals.
- The Minnesota Sports Facility Authority consulted with stakeholders to develop an equity plan with established diversity goals for the [Minnesota Vikings Stadium](#). The PLA established an Equity Oversight Committee to track progress on workforce goals and held bi-monthly meetings that were open to the public.
- The OFCCP [Megaproject Program](#) conducts outreach and engages with prime contractors to regularly convene a broad range of stakeholders in EEO Committees. The committees work to recruit and remove barriers to employment for applicants from underrepresented communities.
- **Provide equitable training and work opportunities.** Many women report²⁰ they do not get the same level of training or work experience and have less access to overtime and other opportunities for advancement than their male coworkers. This limits women's career and earning opportunities and often means it takes women longer to complete apprenticeship programs. Retaining women means making sure women have the same access to training and advancement opportunities as men. A key component to this is proactive monitoring of work hours and duties for women.
- **Implement policies and programs to change workplace culture, prevent and address gender-based violence and harassment, and address health and safety concerns.** Lack of respect, discrimination, gender-based violence and harassment undermine worker health and safety and drive women out of male-dominated jobs. Lack of respect or discrimination is [the main reason](#) tradeswomen seriously consider leaving the construction industry. Additionally, [the EEOC reports](#) that discrimination and harassment pushes women to leave apprenticeship programs and keeps women and people of color out of the construction industry.

Gender-based violence and harassment can also increase the risk of workplace accidents, especially around heavy machinery. Workers who have not been integrated into a workplace culture are more likely to have workplace accidents due to the increased psychological and emotional stress of being excluded.²¹ Women's safety is also undermined when measures, such as providing [personal protective equipment \(PPE\) for diverse bodies](#), are not implemented in favor of a one-size-fits all approach.²²

Components of successful policies and programs to change workplace culture and prevent and address gender-based violence and harassment include: ensuring that a zero tolerance policy prohibiting discrimination, gender-based violence, harassment and retaliation is widely communicated and easily and equally accessible to all; providing worker-led and worker developed ongoing training, education and awareness programming on identifying and responding to gender-based violence and harassment; affirmatively preventing gender-based violence and harassment by prohibiting retaliation against those



who report it; and establishing an independent, trauma-informed, gender responsive, consistent, and transparent process for reporting concerns and/or remedying complaints that includes support for those impacted, active ongoing review of workplace structures, and clear consequences for both harassment and retaliation. Additionally, ensuring all workers have access to secure and sanitary bathrooms, [private places to express breast milk](#) (if needed), and properly fitting PPE are essential for ensuring the health and safety of all workers.

Resources:

- The Department of Labor's Employment and Training Administration's [Office of Apprenticeship Circular No. 2023-01: Guidance – Equal Employment Opportunity in Registered Apprenticeship](#)
- National Center for Women's Equity in Apprenticeship and Employment reports: [Building Equity: Addressing the Impacts of Violence on Pre-Apprenticeship and Apprenticeship Programs: #MeToo in Traditionally Male-Dominated Occupations: Preventing and Addressing Sexual Harassment](#); and [Being a Male Ally: Recommendations for Supporting Women's Success in the Building Trades](#)
- Futures Without Violence's [Workplace and Economic Justice](#) resources for addressing gender-based violence and harassment in the workplace.

Examples:

- The [RISE Up](#) (Respect, Inclusion, Safety, and Equity) program is a respectful workplace campaign in the construction trades.
- The Ironworkers [Be That One Guy](#) initiative aims to empower workers to stand up for their coworkers and eliminate harassment and bullying on jobsites.
- The Sheet Metal (SMART) [Be4All](#) (Belonging and Excellence for All) effort is working to ensure that all members have the same access to resources and opportunities.
- **Continued investment in wraparound supportive services and benefits.** While those who complete registered apprenticeships earn good, family-sustaining wages, first year apprentices earn only a fraction of those who have completed their programs. Though registered apprenticeships or on-the-job training programs are a proven and successful earn-as-you-learn model, many women who begin such programs will face a benefits cliff: they will earn enough that they no longer qualify for subsidies or public assistance programs, but not enough to afford childcare, transportation, or housing without assistance. Individuals who do not complete their apprenticeships are [more likely to report](#) experiencing financial difficulties and report difficulties affording items such as tools and clothing, housing, childcare, and transportation than those who stay in and complete their apprenticeships.

Additionally, workers in the construction industry are less likely to have access to paid family leave or paid sick leave than workers in other industries, which can limit women's ability to successfully complete apprenticeships.²³ Caregiving continues to be a significant burden for women entering and staying in the workforce, including and especially in the construction, manufacturing and clean energy workforces, where workers often face the additional challenge of needing nonstandard hour care. This makes the continued provision of wraparound supportive services and benefits that support caregivers essential for apprentices and those in on-the-job training programs.



Examples:

- ODOT/BOLI's Highway Construction Workforce Development Program is one of the few that provides supportive services for apprentices, including [a number of supports](#) to assist those in the construction trades with access to childcare. There is the Apprentice-Related Child Care funding, the Pre-Apprenticeship Child Care Initiative, and Labor Littles, a new, privately funded non-profit supported by Oregon's Building Trades which is helping union tradespeople find union in-home childcare providers willing to provide care to cover the construction workday.
- Ironworkers and the North Central States Regional Council of Carpenters have both introduced [paid pregnancy and maternity leave](#) benefits to support pregnant women and new mothers in these unions.
- **Examples of Federal Funding Sources for Supportive Services:**

There are a range of federal funds that can be used for supportive services as part of workforce development. Many federal grant opportunities allow for spending on supportive services, but do not require a certain amount to be drawn down for these purposes. This means that it is at the discretion of the grant recipient to set the amount and create a line item for supportive services expenses in their budgets. As a result, there is a discrepancy between those who need supportive services and those who receive them,²⁴ and stakeholders will likely need to braid and blend funds to meet the supportive service needs. Federal funds are available through various funding opportunities that can be used to provide supportive services for participants going through pre-apprenticeship, apprenticeship, and on-the-job-training programs.

Examples of grants and federal funding opportunities that allow for spending on supportive services include:

- The WB's [WANTO grantees](#) can, and do, use up to 25% of grant funds on wraparound supportive services to assist individuals to participate in grant-funded activities. WANTO grantees also provide counseling and resource referral about other funding sources that could provide supportive services needed for women to be successful in apprenticeship and non-traditional occupations. These include programs such as the Temporary Assistance for Needy Families, Supplemental Nutrition Assistance Program, Child Care and Development Fund, Head Start and Early Head Start.
- Supportive services are an allowable expense for Workforce Innovation and Opportunity Act ([WIOA](#)) Adult, Dislocated Worker, and Youth program participants. However, Title I of WIOA (Adult and Dislocated Worker Programs) makes supportive services, including needs-related payments, optional and supportive services may be limited in some local workforce development areas due to local funding or policy choices.²⁵
- The Department of Labor also offers [a number of other grants](#) administered by the Employment and Training Administration that support workforce development activities. The allowable use of funds for supportive services differs by grant program but typically ranges from 10%-20% of grant funds.
- The Department of Transportation (DOT) [released guidance](#) noting that, under the Bipartisan Infrastructure Law (BIL), workforce development-related activities are funded at 100% federal share and expands the types of activities eligible to be paid for using formula funding to include counseling, transportation, and childcare services (among others). DOT funding opportunities and other BIL resources can be found on DOT's [Bipartisan Infrastructure Law](#) webpage.



WOMEN'S BUREAU U.S. DEPARTMENT OF LABOR

- The DOT's Federal Highway Administration runs the [On-the-Job Training Supportive Services](#) (OJT/SS) program, which specifically states that states may set aside ½ of 1% of Surface Transportation Program and Bridge Program funding for OJT/SS. Congress authorized the OJT/SS program in 23 U.S.C. § 140(b).
- The Department of Commerce's [CHIPS-Commercial Fabrication Facilities](#) funding opportunity requires applicants provide a workforce development plan and allows for spending on wraparound supportive services as part of workforce development. Additionally, applicants requesting more than \$150 million in funding must also provide a childcare plan. More information can also be found in the Department of Commerce's [CHIPS for America Workforce Development Planning Guide](#).





Resources

The WB's [WANTO](#) grant program helps to expand pathways for women to enter and lead in all industries. Organizations receiving funds provide one or more of the following types of technical assistance:

- Developing pre-apprenticeship or non-traditional skills training programs to prepare women for those careers;
- Providing ongoing orientations for employers, unions, and workers on creating a successful environment for women to succeed in those careers; and
- Setting up support groups, facilitating networks, or providing support services for women to improve their retention.

The WANTO website has a list of all past and current grantees:

2022 Cohort:

- [Apprenticeship and Nontraditional Employment for Women](#) in partnership with Oregon Tradeswomen, Inc. & Women Accessing Nontraditional Trades, Inc. (WANTT) (Washington, Oregon, and Oklahoma)
- [Chicago Women in Trades](#) (Illinois and Pennsylvania)
- [Fresh Start Women's Foundation](#) (Phoenix, Arizona – semiconductor manufacturing)
- [Hampton Roads Workforce Council](#) (Virginia)
- [Nontraditional Employment for Women](#) (New York City)

2021 Cohort:

- [Moore Community House, Inc.](#) (Mississippi)
- [Per Scholas, Inc.](#) (Metro DC – Women in Tech Software Engineering)
- [SER Jobs for Progress of the Texas Gulf Coast, Inc.](#) (Greater Houston metro area)
- [Tradeswomen Inc.](#) (California)
- [Wisconsin Regional Training Partnership, Inc.](#) (includes cities and counties in WA, CA, WI, IL, KY, LA, and NC)



WOMEN'S BUREAU U.S. DEPARTMENT OF LABOR

In 2022 the Women's Bureau leveraged a small amount of funding to support the [Women Building Infrastructure Initiative](#). Teams included:

- [Nontraditional Employment for Women \(NEW\)](#), New York City
- [Heartland Women in Trades](#), Kansas City, MO and Kansas City, KS
- [Building Pathways](#), Boston MA, working with both city- and state-based agencies
- [Women in Nontraditional Careers Initiative \(WINC\)](#), Philadelphia, PA
- [Texas Women in Trades](#), San Antonio, TX
- [West Virginia Women Work](#), Morgantown, WV
- [NOLA Women in Skilled Trades and Manufacturing Careers](#), New Orleans, LA
- [Vermont Works for Women](#), Winooski, VT
 - As a result of this work, Vermont released a state equity plan: [Equity in Infrastructure: Creating opportunities for women in Vermont's skilled trades workforce](#)
- [Tradeswomen Inc](#), Bay Area, CA
- [Central Ohio Women in Trades](#), Westerville, OH
- [Chicago Women in Trades](#), working with both city- and state-based agencies
- [The National Taskforce on Tradeswomen's Issues](#) website contains resources and a list of tradeswomen organizations across the country.
- [National Center for Women's Equity in Apprenticeships](#) houses resources and best practices around recruiting and retaining women in the construction trades.
 - [Best Practices](#) (research)

The Department of Health and Human Services launched a new [National Early Care and Education Workforce Center](#) to support research and technical assistance for states, communities, territories, and Tribal Nations to improve the recruitment and retention of a diverse and qualified workforce across early care and education programs.

[Policy Group on Tradeswomen Issues \(PGTI\) in Massachusetts](#) has had much success in MA in increasing the share of women in construction. Especially useful:

- [Access and Opportunity Committees \(AOCs\): Best Practices](#) for monitoring project workforce diversity
- [Best Practices](#)
- [Finishing the Job \(How-To Manual\)](#) w/ stakeholder checklists
- [One Pagers](#) (Quick guides to tradeswomen issues)

The Oregon Metro Regional Government has created the [Construction Career Pathways](#) program, which focuses on increasing diversity (for BIPOC individuals and women) across higher skilled construction occupations. Resources include:

- [Construction Career Pathways framework](#)
- [Regional Workforce Equity Agreement](#) (which pairs their strategy for supporting the recruitment of BIPOC and women workers with strong protections for BIPOC and women-owned firms).
- [Construction Career Pathways regional toolkit](#)
- [Regional Construction Workforce Market Study](#)

[Oregon ODOT/BOLI](#) provides supportive services for heavy highway apprentices

- [Maura Kelly](#) (Portland State University) has done extensive research on the impact of Supportive Services for apprentices in Oregon, including:
 - [2022 Evaluation of the Highway Construction Workforce Development Program](#)
 - [2022 Needs Assessment for Oregon's Highway Trades Apprenticeship](#)
 - [Recruitment and Retention in the Highway Trades](#)



Research

- [Advancing Opportunities for Women through Apprenticeship](#) case-based resource guide (Women's Bureau)
- [Building for the Future: Advancing Equal Employment Opportunity in the Construction Industry](#) (EEOC)
- [Advancing Women in Manufacturing: Perspectives from Women on the Shop Floor](#) (IWPR)
- [Effective and Inclusive Child Care Solutions: Toolkit for Implementing CHIPS & Science Act Investments](#) (The Child Care for Every Family Network)
- [A Future Worth Building: What Tradeswomen Say about the Change they Need in the Construction Industry](#) (IWPR)
- [Equity in Focus: Job Creation for a Just Society](#) (IRL School, Cornell University)
- [Here to Stay: Black, Latina, and Afro-Latina Women in Construction Trades Apprenticeships and Employment](#) (CWIT/IWPR)
- [Gold Standard Playbook for Workforce Development \(Accelerator for America\)](#)
- [Child Care Supports for the Construction Trades: Building and Sustaining Diversity in Oregon](#) (IWPR)
- [Growing the Numbers of Women in the Trade: Building Equity and Inclusion through Pre-Apprenticeship Programs](#) (CWIT/IWPR)
- [Diversity, Equity, and Inclusion Initiatives in the Construction Trades](#) (NABTU)
- [Women Only Pre-Apprenticeship Programs: Meeting Skills Needs and Creating Pathways to Good Jobs for Women](#) (CWIT/IWPR)
- [Forging Gender Equity in the Sheet Metal Workers Local 28: The Importance of Leadership, Goals, and Regular Review](#) (CWIT/IWPR)
- [Massachusetts Supply and Demand Strategy: A Successful Model for Increasing Gender Diversity in the Trades](#) (CWIT/IWPR)
- [Women's Committees: A Key to Recruiting and Retaining Women](#) (CWIT/IWPR)
- [Strategies for Meeting the Demand for Advanced Manufacturing and Shipbuilding Workers: Women-Only Pre-Apprenticeship Programs in Mississippi and West Virginia](#) (CWIT/IWPR)
- [Untapped Resources, Untapped Labor Pool: Using Federal Highway Funds to Prepare Women for Careers in Construction](#) (IWPR)



Endnotes

¹ Underserved communities include persons adversely affected by persistent poverty, discrimination, or inequality, including Black, Indigenous, people of color; LGBTQI+ individuals; women; immigrants; veterans; individuals with disabilities; individuals in rural communities; individuals without a college degree; individuals with or recovering from substance use disorder; justice-involved individuals; and opportunity youth.

² While this module uses women as the target population due to their underrepresentation in these male-dominated fields, other groups are also underrepresented in the construction, manufacturing, and clean energy industries. These strategies can and should be applied when targeting a wide range of underrepresented populations. A local or regional analysis will determine the appropriate underrepresented populations that should be targeted.

³ See: <https://www.npr.org/2021/08/08/1025845773/women-are-underrepresented-in-the-trades-industry>; <https://iwpr.org/advancing-women-in-manufacturing-perspectives-from-women-on-the-shop-floor/>; <https://iwpr.org/numbers-matter-clarifying-the-data-on-women-working-in-construction/>; https://tradeswomentaskforce.org/system/files/iceres_study_diversity_equity_and_inclusion_initiatives_in_the_construction_trades.pdf

⁴ While jobs in the construction trades typically have a set hourly wage, the pay disparity mostly comes from differences in hours worked, types of jobs, and seniority. Women are less likely to work in the higher paid, higher skilled construction occupations, are less likely to work the same number of hours as men or be offered overtime hours and are less likely to be promoted to higher-paying positions than their male counterparts. For more information see: [A Future Worth Building: What Tradeswomen Say about the Change they Need in the Construction Industry](https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-global-semiconductor-shortage-pov-v3.pdf) and [Building for the Future: Advancing Equal Employment Opportunity In the Construction Industry](https://www2.deloitte.com/us/en/pages/about-deloitte/articles/minding-the-gender-gap-in-manufacturing-industrial-products-and-services.html).

⁵ <https://blog.dol.gov/2023/03/21/data-spotlight-employment-of-women-with-disabilities-in-skilled-trade-professions>

⁶ <https://iwpr.org/wp-content/uploads/2023/03/IWPR-Advancing-Women-in-Manufacturing-report-2023-FINAL.pdf>

⁷ <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-global-semiconductor-shortage-pov-v3.pdf>; <https://www.npr.org/2023/04/06/1158576556/where-did-the-workers-go-construction-jobs-are-plentiful-but-workers-are-scarce>

⁸ <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/minding-the-gender-gap-in-manufacturing-industrial-products-and-services.html>

⁹ This document contains links to information created and maintained by other public and private organizations. Please be aware that the U.S. Department of Labor does not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of links to particular items is not intended to reflect their importance, nor is it intended to endorse any views expressed or products or services offered by the author of the reference or the organization operating the site on which the reference is maintained.

¹⁰ <https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2023/05/11/the-business-case-for-diversity-equity-and-inclusion/?sh=39c581d92838>; <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>

¹¹ Occupational segregation is the overrepresentation of women in certain jobs. Women are more likely to be concentrated in leisure and hospitality or education and health care sectors and are often concentrated in low-wage jobs with few benefits. For more information, see: <https://www.dol.gov/sites/dolgov/files/WB/media/BearingTheCostReport.pdf>

¹² A recent Equal Employment Opportunity Commission (EEOC) report highlights the adverse impact that bias and discrimination have on women in the construction industry, citing discrimination in hiring as a main factor for the lack of women in the construction industry. For more information see the report: [Building for the Future: Advancing Equal Employment Opportunity In the Construction Industry](https://www2.deloitte.com/us/en/pages/about-deloitte/articles/minding-the-gender-gap-in-manufacturing-industrial-products-and-services.html).

¹³ <https://policygroupontradeswomen.org/wp-content/uploads/2022/02/Finishing-the-Job-v.9.1-12.2.2021-1.pdf>

¹⁴ <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/minding-the-gender-gap-in-manufacturing-industrial-products-and-services.html>

¹⁵ Vital information and/or materials should be made available through translation and/or interpretation in appropriate languages other than English for effective outreach and participation to persons with limited English proficiency (LEP).

¹⁶ See: <https://link.springer.com/article/10.1007/s11199-012-0228-1>



WOMEN'S BUREAU

U.S. DEPARTMENT OF LABOR

¹⁷ See: <https://peostcollaborationguide.com/chapter-4-2/>; <https://www.nawb.org/four-ways-to-serve-immigrant-and-refugee-jobseekers>; https://www.urban.org/sites/default/files/publication/98766/upskilling_immigrant_workforce_to_meet_employer_demand_for_skilled_workers_2.pdf

¹⁸ See: [A Future Worth Building: What Tradeswomen Say about the Change they Need in the Construction Industry](#) and [Advancing Women in Manufacturing: Perspectives from Women on the Shop Floor](#)

¹⁹ See: [A Future Worth Building: What Tradeswomen Say about the Change they Need in the Construction Industry](#)

²⁰ See: [Building for the Future: Advancing Equal Employment Opportunity In the Construction Industry](#); [A Future Worth Building: What Tradeswomen Say about the Change they Need in the Construction Industry](#); [Advancing Women in Manufacturing: Perspectives from Women on the Shop Floor](#)

²¹ <https://www.irbnet.de/daten/iconda/CIB20338.pdf>

²² Olson, Nikki. "What to Know before Recruiting Women in Construction." www.constructionexec.com, 13 Sept. 2021, www.constructionexec.com/article/what-to-know-before-recruiting-women-in-construction

²³ See: [Pregnancy and Maternity Leave in the Trade: Good Practices for Apprentices](#) and [How Apprenticeship Programs in Construction Trades Can Establish Family-Friendly Policies](#)

²⁴ For more information on supportive services see: [Apprenticeship Needs Assessment in Heavy Highway Construction Workforce](#); [Supportive Services in Job Training & Education](#); and [Supportive Services in Workforce Development Programs: Administrator Perspectives on Availability and Unmet Needs](#)

²⁵ See: [Three Ways States Can Expand and Sustain the Infrastructure Workforce by Meeting Child Care Needs](#) and [Funding Career Pathways and Career Pathway Bridges: A Federal Policy Toolkit for States](#)